



California Energy Commission

2008 Integrated Energy Policy Report Committee
and Electricity and Natural Gas Committee

AB 1632 Final Committee Report An Assessment of California's Nuclear Power Plants

Barbara Byron
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Overview of Committee Report

- Background: AB 1632
- Report Process
- AB 1632 Report Recommendations



Background: AB 1632

AB 1632 (Blakeslee) requires:

1. Assessments of the potential impacts of a major disruption of large baseload plants (Diablo Canyon and SONGS)
2. Assessments of the vulnerability of these plants to a major seismic event or plant aging
3. These assessments must be adopted with the 2008 IEPR
4. Subsequent updates in future IEPRs, as new data on potential seismic hazards emerge



AB 1632 Assessments

5. Potential impacts of a disruption on reliability, public safety, and the economy
6. Costs/impacts of nuclear waste accumulation
7. Other major policy issues related to these plants



Report Process

- Study – AB 1632 Committee Report draws heavily upon a study by a multi-disciplinary team led by MRW & Associates
- Public process – 3 public workshops and written comments by stakeholders on draft reports
- Independent assessment - Detailed data requests sent to plant owners; Study Team did not meet with plant owners or interested parties
- Seismic Vulnerability Advisory Team – Provided periodic review of seismic assessment



Summary of Recommendations



Recommendations: Seismic Vulnerability

- SCE should develop an active seismic hazards research program for SONGS similar to PG&E's Long-Term Seismic Program.
- The utilities should use three-dimensional seismic reflection mapping and other advanced techniques at both plant sites and report on their progress and updated seismic assessment in the IEPR 2009.



Recommendations: Seismic Vulnerability

- In upcoming IEPRs, PG&E and SCE should provide:
 - Updates on their seismic research efforts including tsunami hazard assessment
 - Assessment of the degree to which non-safety-related plant components comply with current seismic standards
 - Assessment of the seismic vulnerability implications of evolving seismic standards since Diablo Canyon and SONGS were designed and built
 - Evaluation of the implications for California plants of the 2007 Kashiwazaki-Kariwa earthquake in Japan



Recommendations: Plant Aging

- Energy Commission should continue to closely monitor NRC actions and reviews of Diablo Canyon's and SONGS' performance.
- Energy Commission should monitor safety culture lapses at SONGS and require SCE to report on progress in developing and maintaining a strong safety culture.



Recommendations: Impacts of a Major Disruption

- CAISO studies on aging power plants and once-through cooling should be completed as soon as possible to determine whether further studies on unplanned outages are needed.
- Energy Commission, CPUC, and CAISO should further evaluate uncertainties of extended outages at Diablo Canyon and SONGS and identify needed replacement resources.



Recommendation: Nuclear Waste Accumulation

- As part of the CPUC's decommissioning cost proceedings, utilities should provide estimates of:
 - waste disposal costs (LLW and SNF)
 - plans for storage, transport, and disposal
 - amounts of waste to be generated through a 20-year plant license extension and plant decommissioning.



Recommendations: License Renewal

- The Energy Commission, with the CPUC, should develop a plan for reviewing the overall costs and benefits of nuclear plant license extensions, the scope of the evaluation, and criteria for the assessment.
- Review should include:
 - plant safety culture and maintenance
 - waste storage, transport and disposal plans,
 - seismic hazards
 - comparison with generation and transmission alternatives, and
 - contingency plans for long-term outages.